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PATENT & TRADEMARK OFFICE

FIG.1

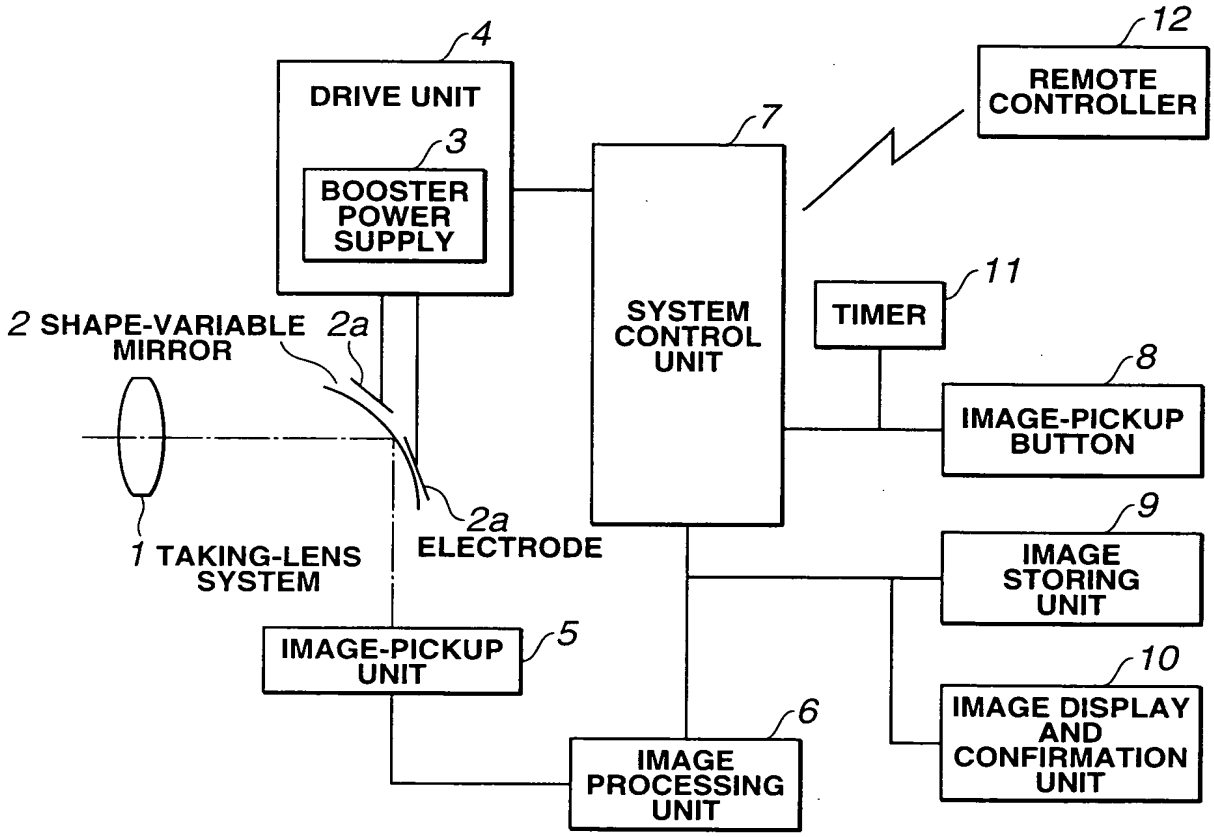


FIG.2

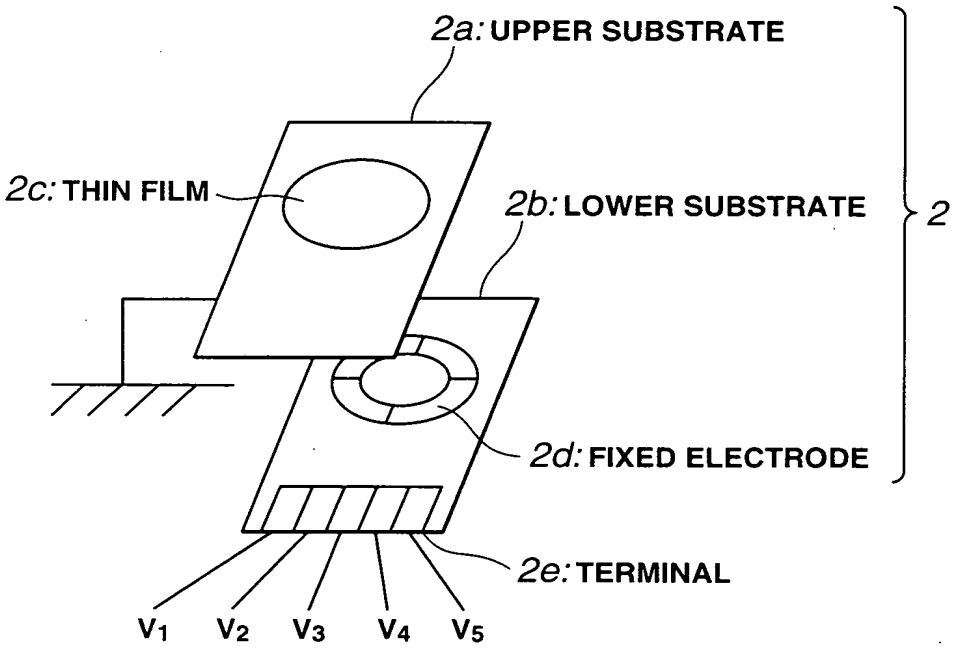

2a: UPPER SUBSTRATE
2c: THIN FILM
2b: LOWER SUBSTRATE
2
2d: FIXED ELECTRODE
2e: TERMINAL
V1
V2
V3
V4
V5

FIG.3

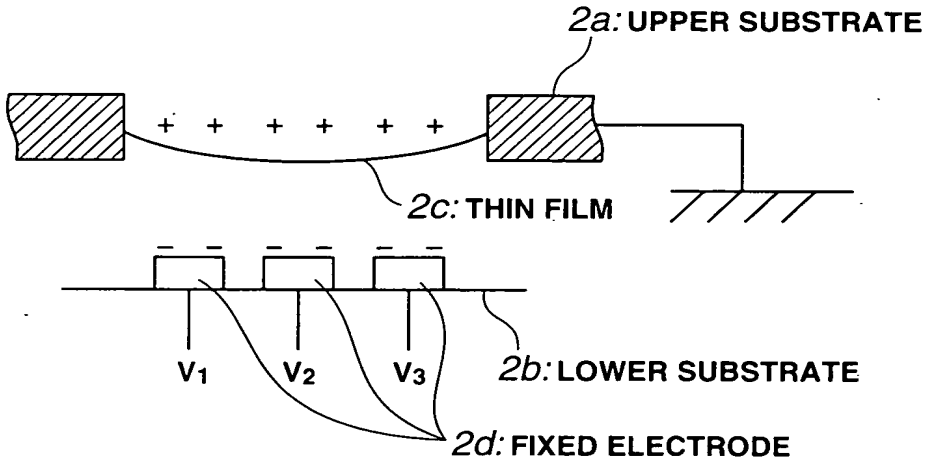
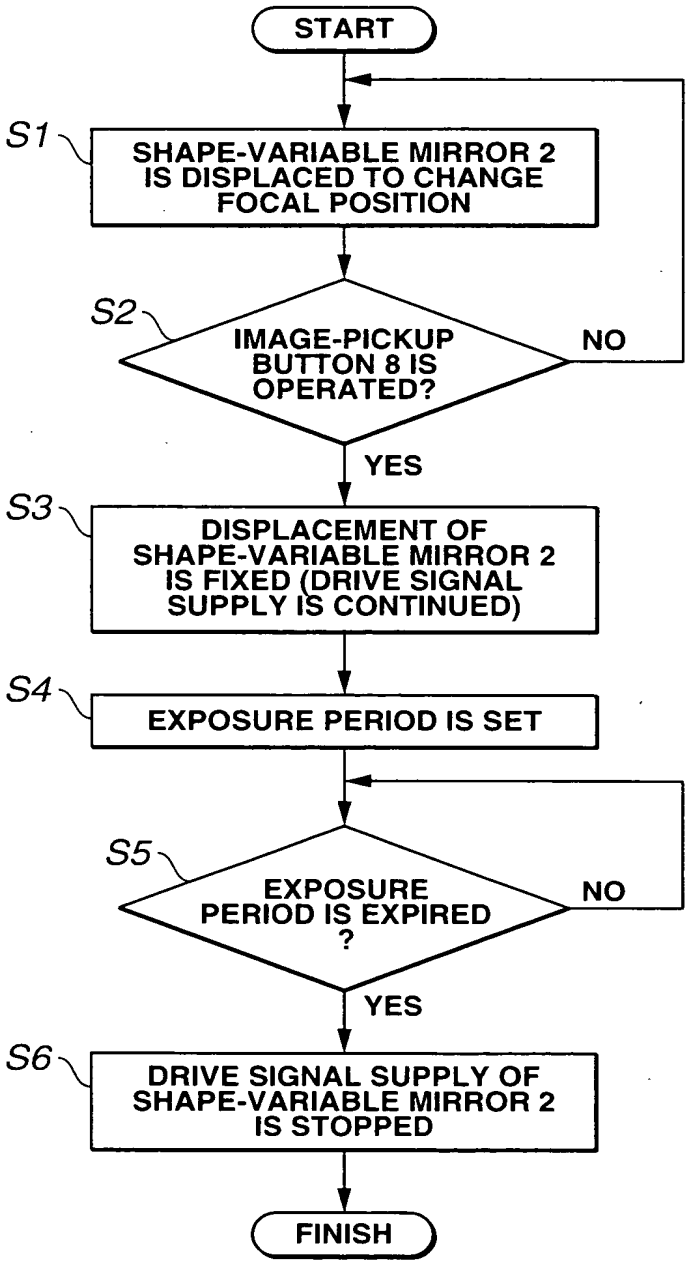

2a: UPPER SUBSTRATE
2c: THIN FILM
V1
V2
V3
2b: LOWER SUBSTRATE
2d: FIXED ELECTRODE

FIG.4


START
S1
SHAPE-VARIABLE MIRROR 2 IS DISPLACED TO CHANGE FOCAL POSITION
S2
IMAGE-PICKUP BUTTON 8 IS OPERATED?
NO
YES
S3
DISPLACEMENT OF SHAPE-VARIABLE MIRROR 2 IS FIXED (DRIVE SIGNAL SUPPLY IS CONTINUED)
S4
EXPOSURE PERIOD IS SET
S5
EXPOSURE PERIOD IS EXPIRED ?
NO
YES
S6
DRIVE SIGNAL SUPPLY OF SHAPE-VARIABLE MIRROR 2 IS STOPPED
FINISH

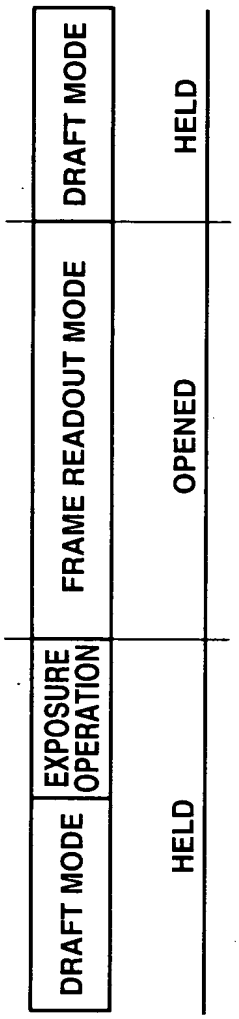
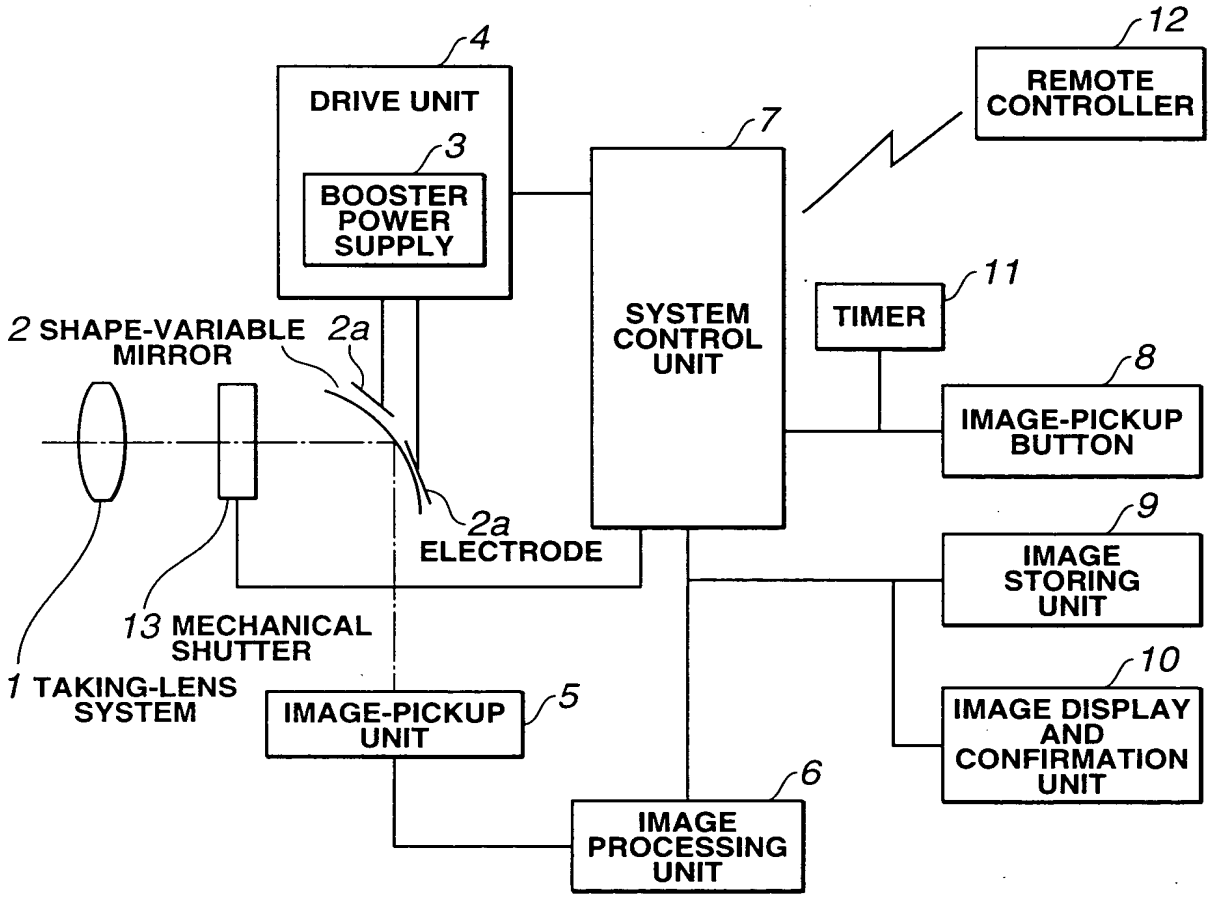


IMAGE-PICKUP ELEMENT OPERATION
DRAFT MODE
EXPOSURE OPERATION
FRAME READOUT MODE
DRAFT MODE
SHAPE-VARIABLE MIRROR DRIVEN
HELD
OPENED
HELD

FIG.5A

FIG.5B

FIG.6


4
DRIVE UNIT
3
BOOSTER POWER SUPPLY
12
REMOTE CONTROLLER
7
SYSTEM CONTROL UNIT
11
TIMER
8
IMAGE-PICKUP BUTTON
2 SHAPE-VARIABLE MIRROR
2a
2a
ELECTRODE
9
IMAGE STORING UNIT
13 MECHANICAL SHUTTER
1 TAKING-LENS SYSTEM
10
IMAGE DISPLAY AND CONFIRMATION UNIT
IMAGE-PICKUP UNIT
5
6
IMAGE PROCESSING UNIT

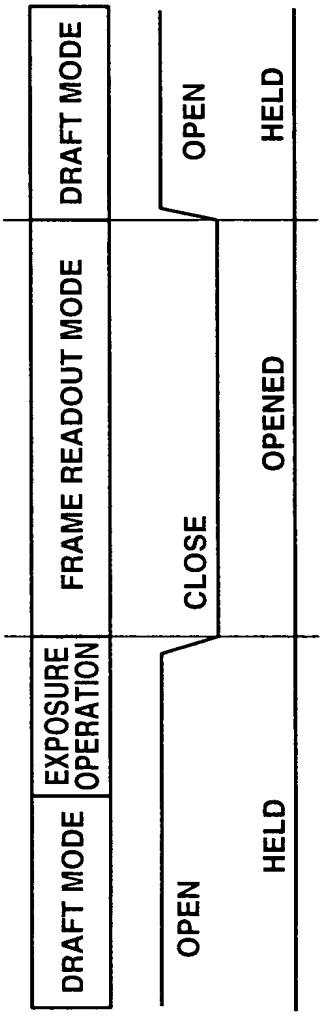


FIG.7A

FIG.7B

FIG.7C

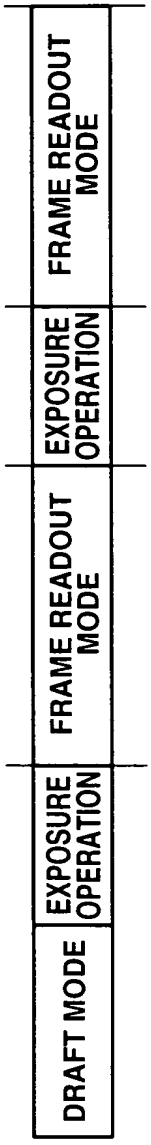


FIG.8A

FIG.8B

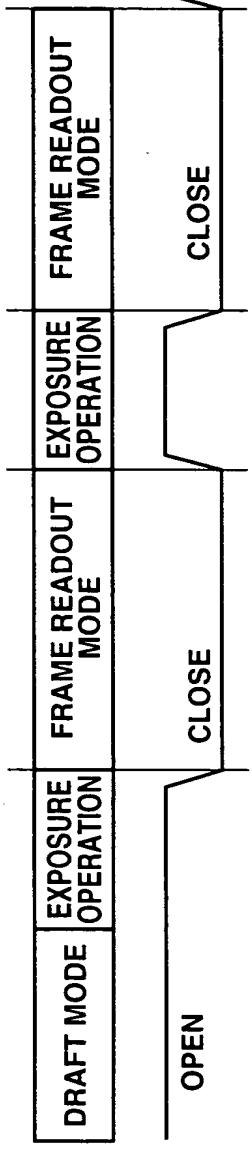


FIG.9A

FIG.9B

FIG.9C

FIG.10

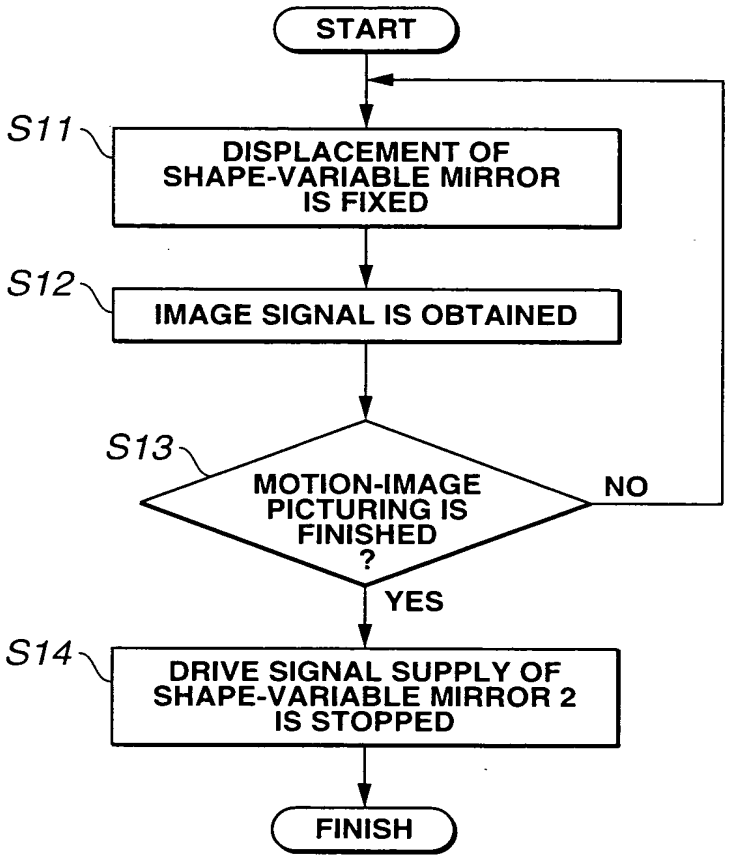

START
S11
DISPLACEMENT OF SHAPE-VARIABLE MIRROR IS FIXED
S12
IMAGE SIGNAL IS OBTAINED
S13
MOTION-IMAGE PICTURING IS FINISHED ?
NO
YES
S14
DRIVE SIGNAL SUPPLY OF SHAPE-VARIABLE MIRROR 2 IS STOPPED
FINISH

FIG.11

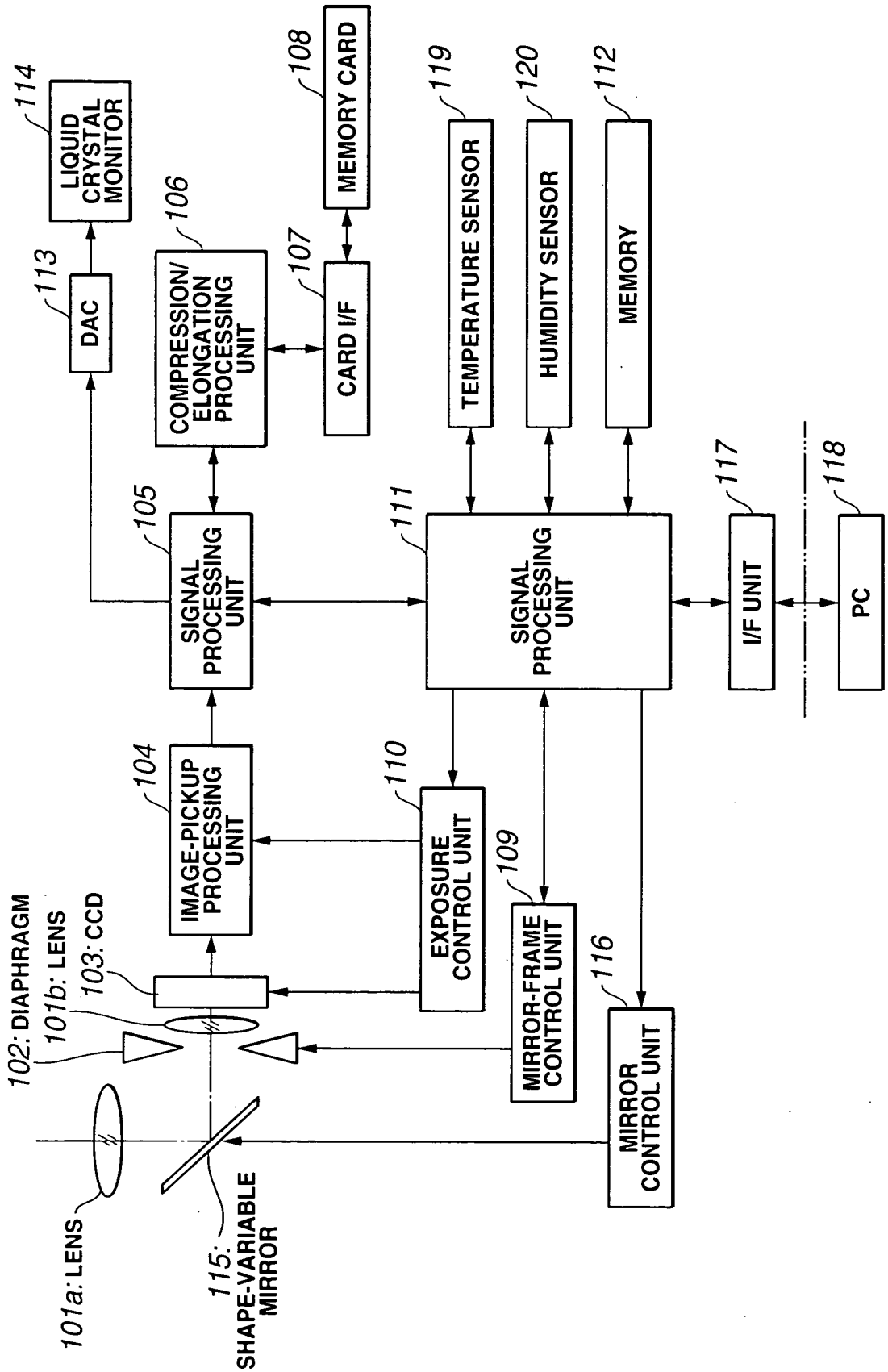

LIQUID CRYSTAL MONITOR
114
DAC
113
COMPRESSION/ ELONGATION PROCESSING UNIT
106
CARD I/F
107
MEMORY CARD
108
TEMPERATURE SENSOR
119
HUMIDITY SENSOR
120
MEMORY
112
SIGNAL PROCESSING UNIT
105
SIGNAL PROCESSING UNIT
111
I/F UNIT
117
PC
118
IMAGE-PICKUP PROCESSING UNIT
104
EXPOSURE CONTROL UNIT
110
MIRROR-FRAME CONTROL UNIT
109
MIRROR CONTROL UNIT
116
102: DIAPHRAGM
101b: LENS
103: CCD
101a: LENS
115: SHAPE-VARIABLE MIRROR

FIG.12

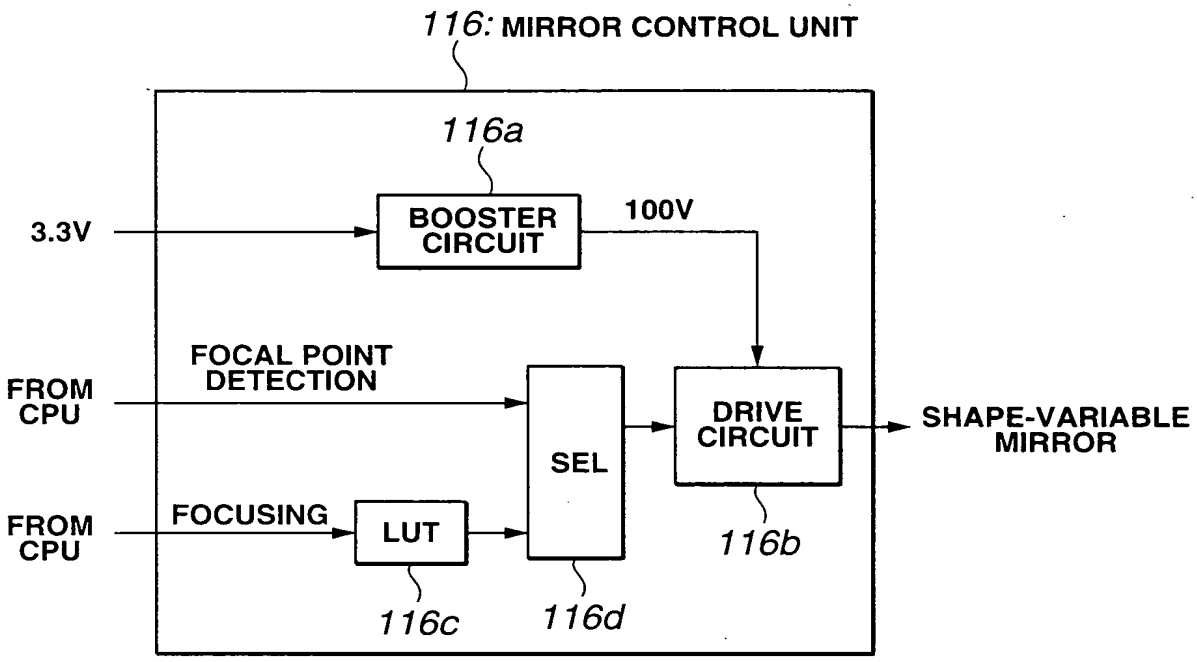

116: MIRROR CONTROL UNIT
116a
3.3V
BOOSTER CIRCUIT
100V
FOCAL POINT DETECTION
FROM CPU
SEL
DRIVE CIRCUIT
SHAPE-VARIABLE MIRROR
FROM CPU
FOCUSING
LUT
116b
116c
116d

FIG.13

INPUT	OUTPUT				
	V1	V2	V3	V4	V5
0	D0_1	D0_2	D0_3	D0_4	D0_5
1	D1_1	D1_2	D1_3	D1_4	D1_5
2	D2_1	D2_2	D2_3	D2_4	D2_5
3	D3_1	D3_2	D3_3	D3_4	D3_5
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
125	D125_1	D125_2	D125_3	D125_4	D125_5
126	D126_1	D126_2	D126_3	D126_4	D126_5
127	D127_1	D127_2	D127_3	D127_4	D127_5

FIG.14

FOCAL DISTANCE CONVERTED TO 35 mm FILM (mm)	LUT INPUT	
	MINIMUM PICTURING DISTANCE	INFINITY
35	10	98
50	20	108
65	30	118
80	24	112
95	18	106